

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/063,787	HARDY, KEVIN GEORGE	
	Examiner	Art Unit	
	Demetrius R. Pretlow	2863	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed September 29, 2006.
2. ☒ The allowed claim(s) is/are 1 and 4-29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|---|

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Patrick Yoder on November 29, 2006.

The application has been amended as follows:

In claim 21, line 4, --of-- is deleted.

In claim 28, line 4, --of-- is deleted.

### ***Allowable Subject Matter***

Claims 1, 4-29 are allowed.

The best prior art of record particularly Kobayashi et al. (US 6,727,979) teach the projection aligner transfers the image of the pattern formed on the mask to the object by scanning a light beam across the mask and the object however Kobayashi et al. does not teach the following claim limitations.

The primary reason for the allowance of claims 1,4-20 is the inclusion of the method step of evaluating the images to determine characteristics of each light stripe; accepting the test setup and alignment if the characteristics of the light stripes are substantially uniform over a section (S) of the test specimen; but, modifying the test setup and alignment if any of the characteristics are not substantially uniform over the

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section; and testing parts (A) using the structured light system and imaging system after an acceptable test setup and alignment is achieved; wherein modifying the test setup and alignment includes repositioning the structured light system relative to the test specimen. It is these steps found in each of the claims, as it is **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 21-27 and 29 is the inclusion of the method step of evaluating the images to determine characteristics of each light stripe including determining the number of pixels extending across the width of a light stripe, the center of each light stripe and the deviation in centeredness along the length of the section (S), and the intensity distribution across the width of a light stripe; focusing each camera used to capture images of the part (A) and light reflected off the part, including determining if the camera can distinguish between each Grey scale level within a range of such levels; testing optical components of the imaging system to determine if there is any distortion present; accepting the test setup and alignment if the characteristics of the light stripes are substantially uniform over a section (S) of the test specimen, each camera in the imaging system is focused, and any measured distortion is substantially eliminated; and testing parts (A) using the structured light system and imaging system after an acceptable test setup and alignment is achieved; wherein modifying the test setup and alignment includes repositioning the structured light system relative to the test specimen. It is these steps found in each of the claims,

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as it is **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 28 is the inclusion of the method step of evaluating the images to determine characteristics of each light stripe including determining the number of pixels extending across the width of a light stripe, the center of each light stripe and the deviation in centeredness along the length of the section (S), and the intensity distribution across the width of a light stripe; accepting the test setup and alignment if the characteristics of the light stripes are substantially uniform over a section (S) of the test specimen; but, modifying the test setup and alignment if any of the characteristics are not substantially uniform over the section; and testing parts (A) using the structured light system and imaging system after an acceptable test setup and alignment is achieved; wherein modifying the test setup and alignment includes repositioning the structured light system relative to the test specimen. It is these steps found in each of the claims, as it is **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (571) 272-2278. The examiner can normally be reached on Mon.-Fri. 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Demetrius R. Pretlow

*Demetrius Pretlow* 11/29/06

Patent Examiner

*Michael Nghiem*  
MICHAEL NGHIEM  
PRIMARY EXAMINER